

Application No. 09/586,641
Amendment dated October 27, 2006
Reply to Office Action of August 10, 2006

Please amend the above-identified application as follows:

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Previously Presented) A printer control device which controls multiple printers connected to a network circuit, said printer control device comprising:
 - a detector for detecting a problem in any of the printers;
 - a selection controller for selecting, when a problem is detected by the detector, another normally functioning printer to substitute for the printer in which the problem is detected by said detector; and
 - a substitution controller for correcting print data expressed in a device dependent color system, that was to have been printed out by the printer in which the problem is detected by said detector, based on a color information of the printer in which the problem is detected by the detector and a color information of the selected substitute printer, to ensure that image quality of the images printed by the selected substitute printer is the same as that of the images printed by the printer in which the problem is detected, and for outputting the corrected print data expressed in the device dependent color system to the selected substitute printer, the color information of the printer in which the problem is detected and the selected substitute printer each includes color conversion information for the respective printer between the device dependent color system and a device independent color space.
2. (Previously Presented) A printer control device as claimed in claim 1, wherein the print data include color print data that indicate a color image, and said substitution controller performs correction so that a color characteristic of the color image printed by the printer in which the problem is detected is the same as that of the color image printed by the selected substitute printer.

3. (Previously Presented) A printer control device as claimed in claim 1, wherein the print data include middletone print data that indicate a middletone image, and the substitution controller performs correction so that a gradation characteristic of the middletone image printed by the printer in which the problem is detected is the same as the gradation characteristic of the middletone image printed by the selected substitute printer.

4. (Original) A printer control device as claimed in claim 1, wherein when said detector detects a problem in the printer performing a print job, said substitution controller outputs to the selected substitute printer the print data for remaining pages not printed by the printer in which the problem is detected.

5. (Previously Presented) A printer control device as claimed in claim 1, wherein said multiple printers include a copying machine.

6. (Currently Amended) A printer control method for controlling multiple printers connected to a network circuit, said printer control method comprising steps of:
detecting a problem in any of the printers;

selecting, when a problem is detected in said detecting step, another normally functioning printer to substitute for the printer in which the problem is detected in said detecting step; and

correcting print data expressed in a device dependent color system, that was to have been printed out by the printer in which the problem is detected in said detecting step, based on a color information of the printer in which the problem is detected ~~by the detector in said detecting step~~ and a color information of the selected substitute printer, to ensure that image quality of the images printed by the selected substitute printer is the same as that of the images printed by the printer in which the problem is detected, and for outputting the corrected print data expressed in the device dependent color system to the selected substitute printer, the color information of the printer in which the problem is detected and the selected substitute printer each includes color conversion information for the respective printer between the device dependent color system and a device independent color space.

7. (Previously Presented) A printer control method as claimed in claim 6, wherein the print data include color print data that indicate a color image, and the correction is performed in said correcting step so that a color characteristic of the color image printed by the printer in which the problem is detected is the same as that of the color image printed by the selected substitute printer.

8. (Previously Presented) A printer control method as claimed in claim 6, wherein the print data include middletone print data that indicate a middletone image, and the correction is performed in said correcting step so that a gradation characteristic of the middletone image printed by the printer in which the problem is detected is the same as the gradation characteristic of the middletone image printed by the selected substitute printer.

9. (Original) A printer control method as claimed in claim 6, wherein when a problem is detected in the printer performing a print job in said detecting step, said correcting step outputs to the selected substitute printer the print data for remaining pages not printed by the printer in which the problem is detected.

10. (Previously Presented) A printer control method as claimed in claim 6, wherein said multiple printers include a copying machine.

11. (Currently Amended) A computer readable medium including computer executable code capable of being run on a computer for controlling multiple printers connected to a network circuit, said computer readable medium comprising computer code for:

detecting a problem in any of the printers;

selecting, when a problem is detected by said ~~detection control~~, detecting computer code, another normally functioning printer to substitute for the printer in which the problem is detected by said ~~detection control~~; detecting computer code; and

correcting print data expressed in a device dependent color system, that was to have been printed out by the printer in which the problem is detected by said ~~detection control~~, detecting computer code, based on a color information of the printer in which the problem is

detected by the ~~detector~~ detecting computer code and a color information of the selected substitute printer, to ensure that image quality of the images printed by the selected substitute printer is the same as that of the images printed by the printer in which the problem is detected, and for outputting the corrected print data expressed in the device dependent color system to the selected substitute printer, the color information of the printer in which the problem is detected and the selected substitute printer each includes color conversion information for the respective printer between the device dependent color system and a device independent color space.

12. (Previously Presented) A computer readable medium as claimed in claim 11, wherein the print data include color print data that indicate a color image, and said computer code for correcting print data performs the correction so that a color characteristic of the color image printed by the printer in which the problem is detected is the same as that of the color image printed by the selected substitute printer.

13. (Previously Presented) A computer readable medium as claimed in claim 12, wherein the print data includes middletone print data that indicate a middletone image, and said computer code for correcting print data performs the correction so that a gradation characteristic of the middletone image printed by the printer in which the problem is detected is the same as the gradation characteristic of the middletone image printed by the selected substitute printer.

14. (Previously Presented) A computer readable medium as claimed in claim 11, wherein when said computer code for detecting a problem detects a problem in the printer performing a print, said computer code for correcting print data outputs to the selected substitute printer the print data for remaining pages not printed by the printer in which the problem is detected.

15. (Previously Presented) A computer readable medium as claimed in claim 11, wherein said multiple printers include a copying machine.

16. (Previously Presented) A printing system comprising:
a first printer, which is connected to a network, for printing print data;
a second printer, which is also connected to the network to which said first printer is connected, for printing print data;
a detector for detecting a problem in any one of said first and second printers;
a controller for selecting, when said detector detects a problem in said first printer, said second printer as a substitute printer, for correcting print data expressed in a device dependent color system that was to have been printed out by said first printer, based on a color information of the first printer in which the problem is detected by the detector and a color information of the second printer, to ensure that image quality of the images printed by said second printer is the same as that of the images printed by said first printer, and for outputting the corrected print data expressed in the device dependent color system to said second printer, the color information of the printer in which the problem is detected and the selected substitute printer each includes color conversion information for the respective printer between the device dependent color system and a device independent color space.

17. (Previously Presented) A printing system as claimed in claim 16, wherein the print data includes color print data that indicates a color image, and said controller performs correction so that a color characteristic of the color image printed by said first printer in which the problem is detected is the same as that of the color image printed by said second printer.

18. (Previously Presented) A printing system as claimed in claim 16, wherein the print data include middletone print data that indicate a middletone image, and the controller performs correction so that a gradation characteristic of the middletone image printed by the first printer in which the problem is detected is the same as the gradation characteristic of the middletone image printed by the second printer.

19. (Original) A printing system as claimed in claim 16, wherein when said detector detects a problem in the first printer performing a print job, said controller outputs to

the second printer the print data for remaining pages not printed by the first printer in which the problem is detected.

20. (Original) A printing system as claimed in claim 16, wherein at least one of said first and second printers is a copying machine.

21. (Previously Presented) A printer control device as claimed in claim 1, wherein image quality includes at least one of a color characteristic and a gradation characteristic.

22. (Previously Presented) A printer control method as claimed in claim 6, wherein image quality includes at least one of a color characteristic and a gradation characteristic.

23. (Previously Presented) A computer readable medium as claimed in claim 11, wherein image quality includes at least one of a color characteristic and a gradation characteristic.

24. (Previously Presented) A printing system as claimed in claim 16, wherein image quality includes at least one of a color characteristic and a gradation characteristic.

25. (Previously Presented) A printer control method for controlling a first printer having a first reproduction characteristic and a second printer having a second reproduction characteristic, the first reproduction characteristic including color conversion information for the first printer between a device dependent color system and a device independent color space, the second reproduction characteristic including color conversion information for the second printer between the device dependent color system and the device independent color space, said first and second printers connected to a network circuit, said printer control method comprising steps of:

assigning, when the first printer malfunctions, the second printer to substitute for the first printer;

Application No. 09/586,641
Amendment dated October 27, 2006
Reply to Office Action of August 10, 2006

correcting the print data expressed in the device dependent color system that was to have been printed out by the first printer and was processed based on the first reproduction characteristic for printing by the first printer, based on both the first reproduction characteristic and the second reproduction characteristic, so that an image quality due to the first reproduction characteristic is substantially the same as an image quality due to the second reproduction characteristic; and

outputting the corrected print data expressed in the device dependent color system to the second printer.

26. (Previously Presented) A printer control method as claimed in claim 25, wherein image quality includes at least one of a color characteristic and a gradation characteristic.

27. (Previously Presented) A printer control method as claimed in claim 25, wherein the first and second reproduction characteristics each include at least one of a color characteristic and a gradation characteristic.